



## Features :

- 3 stage charging
- AC 115/230VAC selected by switch
- Built-in passive PFC function compliance to EN61000-3-2 Class A (option)
- Protection: Short circuit / Reverse polarity / Over voltage / Over temperature
- Cooling by free air convection
- Charger for lead-acid batteries
- 2 color LED loading indicator
- Low cost, High reliability
- 3 years warranty



PB - 300 **P** - 12

P:With Passive PFC  
N:Without Passive PFC

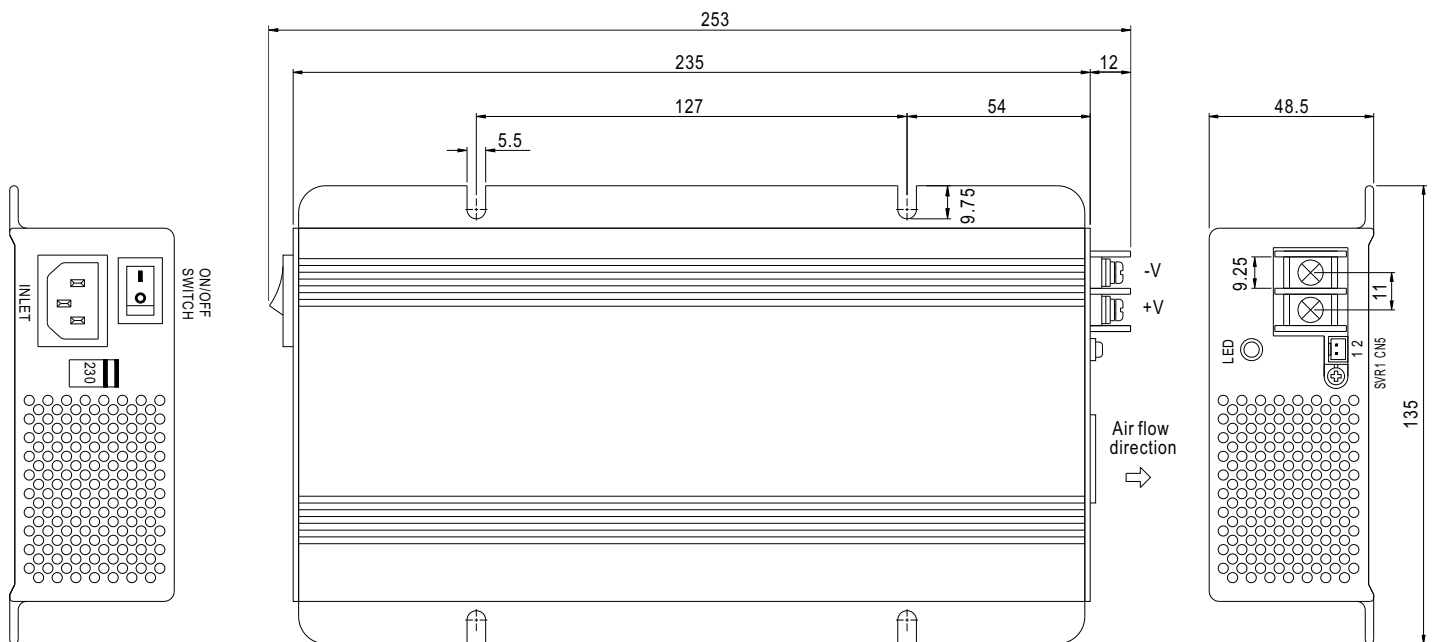
12:14.4V  
24:28.8V  
48:57.6V

## SPECIFICATION

| MODEL                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | PB-300□-12                                                                                  |                                                                                                             | PB-300□-24 |  | PB-300□-48 |  |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|------------|--|------------|--|
| OUTPUT                                  | BOOST CHARGE VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 14.4V                                                                                       |                                                                                                             | 28.8V      |  | 57.6V      |  |
|                                         | FLOAT CHARGE VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 13.6V                                                                                       |                                                                                                             | 27.2V      |  | 54.4V      |  |
|                                         | VOLTAGE ADJUSTABLE RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 13 ~ 14.7V                                                                                  |                                                                                                             | 26 ~ 28.8V |  | 52 ~ 58.6V |  |
|                                         | RECOMMENDED BATTERY CAPACITY(AMP HOURS) <small>Note 5</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 60 ~ 200Ah                                                                                  |                                                                                                             | 30 ~ 100Ah |  | 15 ~ 50Ah  |  |
|                                         | BATTERY TYPE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Open & Sealed Lead Acid                                                                     |                                                                                                             |            |  |            |  |
|                                         | MAX. OUTPUT CURRENT(Typ.) <small>Note 7</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 20.85A                                                                                      |                                                                                                             | 10.5A      |  | 5.3A       |  |
|                                         | CONTINUOUS OUTPUT CURRENT (Typ.) <small>Note 6</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 12.5A                                                                                       |                                                                                                             | 6.25A      |  | 3.2A       |  |
|                                         | INPUT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | VOLTAGE RANGE                                                                               | 90 ~ 132VAC / 180 ~ 264VAC selected by switch      127 ~ 187VDC / 254 ~ 370VDC                              |            |  |            |  |
| FREQUENCY RANGE                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 47 ~ 63Hz                                                                                   |                                                                                                             |            |  |            |  |
| EFFICIENCY (Typ.)                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 85%                                                                                         |                                                                                                             | 86%        |  | 88%        |  |
| POWER FACTOR (Typ.)                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | >0.65 (with P type) at 230VAC                                                               |                                                                                                             |            |  |            |  |
| AC CURRENT (Typ.)                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 6A/115VAC      3A/230VAC                                                                    |                                                                                                             |            |  |            |  |
| INRUSH CURRENT (Typ.)                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | COLD START 60A                                                                              |                                                                                                             |            |  |            |  |
| LEAKAGE CURRENT                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <3.5mA / 240VAC                                                                             |                                                                                                             |            |  |            |  |
| PROTECTION                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | SHORT CIRCUIT                                                                               | O/P Built in fuse (FS100) to protect short circuit condition, shut down o/p voltage and can not re-power on |            |  |            |  |
|                                         | REVERSE POLARITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | By internal fuse                                                                            |                                                                                                             |            |  |            |  |
|                                         | OVER VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 16 ~ 18V                                                                                    |                                                                                                             | 31 ~ 35V   |  | 59 ~ 64V   |  |
|                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Protection type : Shut down o/p voltage, re-power on to recover                             |                                                                                                             |            |  |            |  |
|                                         | OVER TEMPERATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Protection type : Automatically derate charge current until zero                            |                                                                                                             |            |  |            |  |
| FUNCTION                                | REMOTE CONTROL (CN5)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Open: Normal work      Short: Stop Charging                                                 |                                                                                                             |            |  |            |  |
| ENVIRONMENT                             | WORKING TEMP.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | -10 ~ +50℃ (Refer to output load derating curve)                                            |                                                                                                             |            |  |            |  |
|                                         | WORKING HUMIDITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 20 ~ 90% RH non-condensing                                                                  |                                                                                                             |            |  |            |  |
|                                         | STORAGE TEMP., HUMIDITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | -40 ~ +85℃, 10 ~ 95% RH                                                                     |                                                                                                             |            |  |            |  |
|                                         | TEMP. COEFFICIENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | ±0.05%/℃ (0 ~ 45℃)                                                                          |                                                                                                             |            |  |            |  |
|                                         | VIBRATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes                                |                                                                                                             |            |  |            |  |
| SAFETY & EMC<br><small>(Note 4)</small> | SAFETY STANDARDS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | IEC60335-2-29 CB approved by TUV(except for 48V), UL60950-1 approved                        |                                                                                                             |            |  |            |  |
|                                         | WITHSTAND VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | I/P-O/P:3KVAC    I/P-FG:1.5KVAC    O/P-FG:0.5KVAC                                           |                                                                                                             |            |  |            |  |
|                                         | ISOLATION RESISTANCE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25℃ / 70% RH                                   |                                                                                                             |            |  |            |  |
|                                         | EMI CONDUCTION & RADIATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Compliance to EN55022 (CISPR22) Class B                                                     |                                                                                                             |            |  |            |  |
|                                         | HARMONIC CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Compliance to EN61000-3-2,-3 (only P type)                                                  |                                                                                                             |            |  |            |  |
|                                         | EMS IMMUNITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN55024, light industry level, criteria A |                                                                                                             |            |  |            |  |
| OTHERS                                  | MTBF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 115.8Khrs min.      MIL-HDBK-217F (25℃)                                                     |                                                                                                             |            |  |            |  |
|                                         | DIMENSION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 253*135*48.5mm(L*W*H)                                                                       |                                                                                                             |            |  |            |  |
|                                         | PACKING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1.45Kg; 6pcs/9.7Kg/0.95CUFT                                                                 |                                                                                                             |            |  |            |  |
| NOTE                                    | 1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ of ambient temperature.<br>2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.<br>3. Tolerance : includes set up tolerance, line regulation and load regulation.<br>4. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives.<br>5. This is Mean Well's suggested range. Please consult your battery manufacturer for their suggestions about maximum charging current limitation.<br>6. Test condition is at 25℃, charging current will change under different temperature.<br>7. Maximum charging current will be in the range of 90~110% rated output current. |                                                                                             |                                                                                                             |            |  |            |  |

## Mechanical Specification

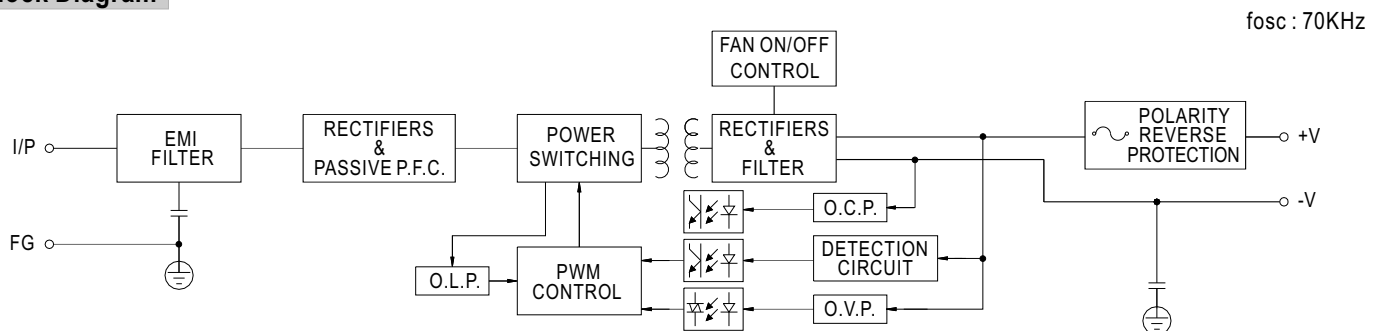
Case No.801B Unit:mm



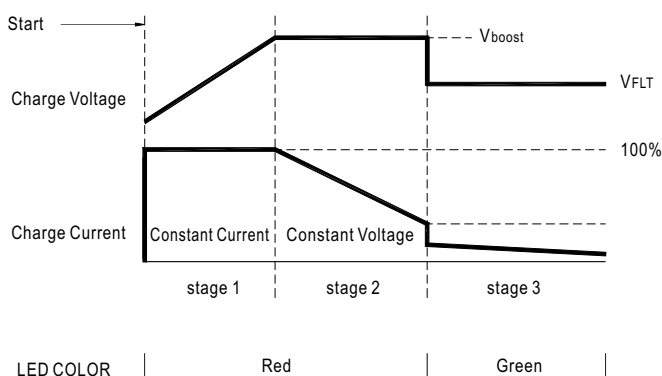
Remote Control(CN5) : JST B2B-XH or equivalent

| Assignment                  | Mating Housing        | Terminal                        |
|-----------------------------|-----------------------|---------------------------------|
| PIN1,2 Open: Normal work    | JST XHP or equivalent | JST SXH-001T-P0.6 or equivalent |
| PIN1,2 Short: Stop Charging |                       |                                 |

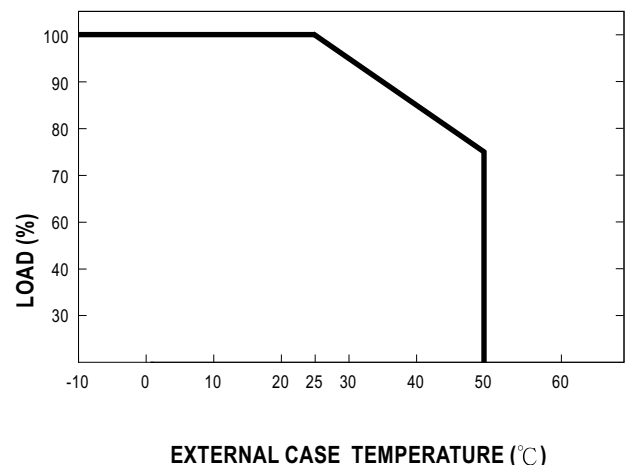
## Block Diagram



## Charging Curve



## Output Load VS Temperature



| State  | PB-300-12 | PB-300-24 | PB-300-48 |
|--------|-----------|-----------|-----------|
| Vboost | 14.4V     | 28.8V     | 57.6V     |
| VFLT   | 13.6V     | 27.2V     | 54.4V     |